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Repository Citation

Mallett, Christopher; DeRigne, Lea A.; Quinn, Linda; and Dare, Paricia Stoddard, "Discerning Reported Suicide Attempts Within a Youthful Offender Population" (2012). *Mathematics Faculty Publications*. 185.

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Discerning Reported Suicide Attempts Within a Youthful Offender Population

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With suicide being the third leading cause of death among young people, early identification of risk is critical, particularly for those involved with the juvenile courts. In this study of court-involved youth ($N = 433$) in two Midwest counties, logistic regression analysis identified some expected and unexpected findings of important demographic, educational, mental health, child welfare, and juvenile court-related variables that were linked to reported suicide attempts. Some of the expected suicide attempt risk factors for these youth included prior psychiatric hospitalization and related mental health services, residential placement, and diagnoses of depression and alcohol dependence. However, the most unexpected finding was that a court disposition to shelter care (group home) was related to a nearly tenfold increased risk in reported suicide attempt. These findings are of importance to families, mental health professionals, and juvenile court personnel to identify those youth who are most at risk and subsequently provide appropriate interventions to prevent such outcomes.

The death of a child is a tragedy regardless of how or why it happens. When a child takes his or her own life, it can be especially difficult to make sense of the reasons why. Suicide in the United States is the third leading cause of death among young people aged 10–24 years (Child Trends, 2010). Nearly 1,000 youth aged 12–17 commit suicide annually (Centers for Disease Control and Prevention, 2008; Substance Abuse and Mental Health Services Administration, 2010a). Many more young people contem-

plate suicide, and others make attempts that are not fatal. Of the nearly three million youth aged 12–17 in the United States who received specialty mental health services in 2009, over 20% of them reported that the reason for seeking services was thinking about or attempting suicide (Substance Abuse and Mental Health Services Administration, 2010b). This number does not include those youth who either do not have access to mental health services or who never seek help for thoughts of suicide.

There are many risk factors associated with suicide among young people, including a history of previous suicide attempts, family history of suicide, history of depression or other mental illness, alcohol or drug abuse, stressful life events or loss, easy access to lethal methods, exposure to suicidal behavior of others, and incarceration (Centers for Disease Control and Prevention, 2008). This article is specifically focused on the relationship between involvement with the juvenile courts

and suicide attempts. This is a large population of youth with over 2.1 million arrests of young people in the United States under the age of 18 in 2008 (Puzzanchera, 2009). In 2007, there were 1.7 million arrested youth who were adjudicated delinquent and supervised by the juvenile courts (Knoll & Sickmund, 2010; Livsey, 2010). Reports document 350,000 youth were being held in detention centers (Holman & Ziedenberg, 2006; Sickmond, 2008), while over 100,000 youth were being held in correctional facilities (Davis, Tsukida, Marchionna, & Krisberg, 2008; Sickmond, 2006). Youth offenders often have multiple risk factors for suicide attempts and are a group of young people who researchers and mental health professionals need to be focused on in an effort to prevent such outcomes.

A national study in the United States of delinquent juveniles in placement found that 110 suicides occurred between 1995 and 1999 (Hayes, 2004). Of the 79 cases with complete information, it was found that 42% of the suicides took place in secure juvenile court facilities and training schools, 37% in detention centers, 15% in residential treatment centers, and 6% in reception or diagnostic centers (Hayes, 2009). An earlier national survey had found 57 suicide deaths per 100,000 youth in detention centers, which is a rate 4.6 times higher than for youths in the general population (Memory, 1989). Thoughts of suicide have been reported to be as high as 51% among incarcerated youths (Esposito & Clum, 1999). It has also been found that incarcerated youth use more violent means of suicide attempts (e.g., cutting, hanging) over nonincarcerated youth who attempt suicide (Penn, Esposito, Schaeffer, Fritz, & Spirito, 2003). These methods tend to lead to suicide completion at a higher rate, making this population particularly vulnerable to suicide fatality. A U.S. survey in 2003 of 7,073 youth in custody found that 30% of this population reported recent suicidal feelings (Sedlak & McPherson, 2010). The researchers also found that lifetime suicide attempts by this detained and incarcerated youth population

are dramatically higher than by the general population (22% compared to 3 to 10%). There is some debate about how to calculate suicide rates in juvenile justice facilities (Gallagher & Dobrin, 2006). For facilities, the use of a bed-based rate versus person-based rate takes into account the high turnover of this population and thus adjusts the calculation to account for length of stay.

Because the juvenile offender population is disproportionately minority and male, it is important to note that adolescent males are more likely to die from suicide, although adolescent females are more likely to report attempting suicide (Centers for Disease Control and Prevention, 2008). There are also ethnic and racial variations in suicide. Native American-Alaskan Native and Hispanic youth have the highest rate of suicide deaths (Centers for Disease Control and Prevention, 2008) and suicide ideation (Graham & Corcoran, 2003). And in one study of a juvenile court population, Caucasian adolescent females reported more incidents of suicide/self-injury than their African American counterparts (Holsinger & Holsinger, 2005).

Researchers have found associations between delinquency and other antisocial and violent behavior and risk for suicidal behavior (Evans, Hawton, & Rodham, 2004; Flisher et al., 2000; Rutter, 2007; Thompson, Ho, & Kingree, 2007). Even when covariates (age, ethnicity, gender, alcohol problems, depression, self-esteem, impulsivity, and religiosity) were controlled for, delinquency was still related to suicidal ideation and attempts up to 1 year later and to ideation up to 7 years later (Thompson et al., 2007). Youths with an arrest history are more likely to report a suicide attempt than youth without an arrest history (Tolou-Shams, Brown, Gordon, & Fernandez, 2007). In addition, young people in juvenile justice facilities who have experienced maltreatment as a child are more than twice as likely to have attempted suicide as their peers who had experienced maltreatment but were not in these facilities (Croysdale, Drerup, Bewsey, & Hoffman, 2008).

Researchers in Utah analyzed contact with different state agencies including juvenile justice, child protective services, mental health, and education (Gray et al., 2002). Sixty-three percent of youth who had completed suicide between the years 1996 and 1999 in Utah had contact with the juvenile justice system. Researchers have begun to analyze how facility characteristics may be related to suicide attempts and deaths (Gallagher & Dobrin, 2005, 2006). One study found that facilities that house larger populations of African American youth and facilities that had locked sleeping room doors had the highest risk of suicide attempts (Gallagher & Dobrin, 2006). Both studies found lower risks of suicide attempts and deaths at facilities that screened all youths within 24 hours of arrival at the facility.

In sum, suicide risk is highly prevalent within juvenile court populations and in particular for those youth in secure juvenile facilities. Previous research has confirmed that delinquent activities and outcomes increase youth suicide risk. This study extends existing knowledge regarding correlates of suicidal thoughts and behaviors in youth who have been adjudicated delinquent by investigating the impact of a multitude of risk factors. A total of 30 demographic, educational, child welfare, mental health, and juvenile court-related variables were analyzed regarding their relationship to reported suicide attempts among a sample of delinquent youth; hypotheses were formed about the impact of each variable on these attempts. Findings from this retrospective research may help evaluators, court personnel, and mental health professionals to further understand possible risk factors for suicidal ideation among this population. Since suicidal ideation and attempts are linked to many deleterious consequences including delinquency recidivism, it is worthwhile to learn about factors associated with suicide attempts so that at-risk youth can be identified and treated before additional negative consequences occur (Mallett, Stoddard-Dare, & Seck, 2011; Mulder, Brand, Bullens, & van Marie, 2011).

METHOD

Sampling

This study utilized a sampling frame of all youth under juvenile court supervision over a distinct period of time in two counties within a U.S. midwestern state, a fairly common procedure in juvenile court research (Lemmon, 1999; Yun, Ball, & Lim, 2011). These two counties were chosen because they represent two distinct county populations—one urban and one rural—and because they are located adjacent to one another. The first county (urban) had an annual population size of 2,300 probation-supervised youthful offenders, and the second county (rural) had an annual population size of 300 probation-supervised youthful offenders. From these, it was determined that a sample size of 343 from the first county (over 3 years—2006–2008) and a sample size of 90 from the second county (over 1 year—2008) would provide the appropriate 5% margin of error and 95% confidence interval, assuming a population proportion of 50% (Royse, Thyer, Padgett, & Logan, 2006). From a list of all probation-supervised youth from each court's sampling frame, a simple random sample was then drawn for each year of the counties' probation-supervised population. Using this sampling procedure, a total of 433 youth were included in the study sample: urban county, 2006 = 100; 2007 = 137; 2008 = 105; rural county, 2008 = 91.

Data Collection

Data were collected from existing de-identified files provided by each county's juvenile court. Each file contained official records associated with each youth in the study sample—specifically, juvenile court histories, probation supervision case files, and intake assessments. Data from the case records were coded and entered into a statistical software package. Each case entered was evaluated by two researchers for proper thematic coding and correct data entry,

with high inter-coder reliability for both (0.96).

Measurement

Variables that are theoretically and empirically relevant were measured for this study, including demographic, educational, mental health, child welfare, and juvenile court-related variables.

Independent Variables

Demographic variables included race (Caucasian = 1, minority = 0), age (in years), gender (male = 1, females = 0), county of residence (rural = 1, urban = 0), and living in poverty (yes = 1, no = 0). Youth education disability variables were measured according to special education disability types: severely behaviorally handicapped (SBH), developmentally handicapped (DH), and severely emotionally disturbed (SED); these were all diagnosed prior to initial delinquency adjudication by licensed school psychologists. In addition, parent high school graduation was measured (yes = 1, no = 0). Data for these variables were extracted from existing probation case files. Three related variables were measured including any child welfare system involvement (yes = 1, no = 0), substantiated maltreatment (yes = 1, no = 0), and parental substance abuse (yes = 1, no = 0). Mental health diagnoses were included, which were based on the diagnosis made by a licensed provider using *Diagnostic and Statistical Manual of Mental Disorders-IV* (DSM-IV; American Psychiatric Association, 2000) criteria (yes = 1 indicates a diagnosis, no = 0 for no diagnosis); these were attention-deficit hyperactivity disorder (ADHD), conduct disorder, oppositional defiant disorder, bipolar disorder, depression, adjustment disorder, posttraumatic stress disorder (PTSD), anxiety disorder, alcohol dependence, and substance use disorders (individuals were counted as alcohol or substance dependent if youth have a past or present diagnosis using DSM-IV criteria for dependence to alcohol or any drug). Also, mental health services

(any, psychiatric hospitalization, psychiatric medication) prior to juvenile court involvement were measured (yes = 1, no = 0).

Several court-related and legal variables were also measured. These included the total number of times the youth were adjudicated delinquent (in number of times); the youth's age at first delinquency adjudication (in years); the youth's total number of court offenses which includes multiple offenses, over time (in number of court offenses); and the youth's prior conviction of a property crime, personal crime, drug-related crime, or violation of a court order (VCO), misdemeanor and felony (all coded yes = 1 for a conviction, no = 0 for no conviction). In addition, juvenile court dispositions (orders from the court) were measured and included mental health services, psychiatric evaluation, the Multi-Systemic Therapy (MST) Program, and four types of placement (detention center, shelter care, residential placement, and recidivism to one of these out-of-home placements). A small number of missing variables were imputed with either the mean (for continuous variables) or the mode (for categorical variables), except for juvenile court-related variables where missing cases (only one to two per variable) were eliminated from the analysis (see Table 1).

Dependent Variable

One dependent variable, prior suicide attempt, was measured using case record notation of a prior suicide attempt reported by the youth, family, or a licensed provider (yes = 1 indicates a prior suicide attempt, no = 0 indicates no prior suicide attempt). This was measured as a lifetime history of suicide attempts, prior to juvenile court supervision. There were no missing cases for the dependent variable.

Data Analysis

To analyze the relationship between the 30 independent variables and the dependent variable previously reported suicide attempt, a

TABLE 1*Descriptive Statistics of Variables (Frequencies and Percentages in Parentheses), N = 433*

	Variable	Yes	No
Dependent Variable	Reported suicide attempt	53 (12.2%)	380 (87.8%)
Demographics (%)	Age	Mean = 15.2 (<i>SD</i> = 1.6)	
	Gender	Male	Female
		303 (70.0)	130 (30.0)
	Race	Caucasian	All others
		155 (35.8)	278 (64.2)
	Poverty	223 (51.5)	210 (48.5)
	Parent high school diploma	167 (38.8)	265 (61.2)
	County	Urban	Rural
		343 (79.2)	90 (20.8)
Youth education disabilities (%)	SBH	29 (6.7)	404 (93.3)
	DH	5 (1.2)	428 (98.8)
	SED	30 (6.9)	403 (93.1)
Mental health diagnosis (%)	Attention deficit hyperactivity disorder	103 (23.8)	330 (76.2)
	Conduct disorder	40 (9.2)	393 (90.8)
	Oppositional defiant disorder	33 (7.6)	400 (92.4)
	Bipolar disorder	34 (7.9)	399 (92.1)
	Depression	52 (12.0)	381 (88.0)
	Adjustment disorder	10 (2.3)	423 (97.7)
	Posttraumatic stress disorder	10 (2.3)	423 (97.7)
	Anxiety disorder	11 (2.5)	422 (97.5)
	Alcohol dependence	17 (3.9)	416 (96.1)
	Substance use disorders	64 (14.8)	369 (85.2)
Child welfare (%)	Child welfare history	263 (60.7)	170 (39.3)
	Maltreatment substantiated	286 (66.1)	137 (33.9)
	Parental substance abuse	299 (69.1)	134 (30.9)
Mental health services prior to juvenile court involvement (%)	Any mental health service	238 (56.0)	195 (44.0)
	Psychiatric hospitalization	50 (11.5)	383 (88.5)
	Psychiatric medication	108 (26.6)	325 (73.4)
Juvenile court involvement (%)	Delinquency adjudications ^a	Mean = 1.3 (<i>SD</i> = 0.6)	
	Age at first delinquency adjudication	Mean = 14.6 (<i>SD</i> = 1.6)	
	Court offenses ^a	Mean = 4.4 (<i>SD</i> = 3.8)	
	Recidivism to out of home placement	71 (16.4)	362 (83.6)
	Any felony offense	237 (54.9)	195 (45.1)
	Any misdemeanor offense	358 (82.7)	75 (17.3)
	Property crime commission	238 (55.0)	195 (45.0)
	Personal crime commission ^b	261 (60.4)	171 (39.6)
	Drug crime commission	85 (64.9)	346 (80.3)
	Violation of a court order	149 (34.5)	283 (65.5)
Juvenile court dispositions (%)	Mental health services	184 (42.5)	249 (57.5)
	Psychiatric evaluation	172 (39.7)	261 (60.3)
	Multi Systemic Therapy program	44 (10.2)	389 (89.8)
	Detention center placement	63 (14.5)	370 (85.5)
	Residential placement	43 (9.9)	390 (90.1)
	Shelter care placement	19 (4.4)	414 (95.6)

SBH, severely behaviorally handicapped; DH, developmentally handicapped; SED, severely emotionally disturbed; ADHD, attention deficit hyperactivity disorder; PTSD, posttraumatic stress disorder.

^a1 missing case.

^b2 missing cases.

series of bivariate logistic regression equations were performed for each variable pair. The column labeled “No controls” in Table 2 reports the odds ratios for each variable pair.

In an effort to determine whether reported suicide attempt can be correctly identified as a proxy for another variable or variables, a series of multivariate logistic regression equations were computed using theoretically relevant and previously identified controls. To this end, another round of multivariate logistic regression equations were calculated using the same independent and dependent variables. To account for demographic variables, age, gender, race, and urban county were entered as control variables. Odds ratios from those analyses can be found in the column labeled “Demographic controls” in Table 2.

Next, all mental health-related diagnoses (ADHD, conduct disorder, oppositional defiant disorder, bipolar, depression, adjustment disorder, PTSD, anxiety disorder, alcohol dependence, and substance dependence) were entered as controls into the same bivariate logistic regression equations. Odds ratios from those analyses can be found in the column labeled “Any mental health diagnosis control” in Table 2.

Finally, to control for the effect of poverty, the following variables (lived below the poverty threshold; parent education level less than high school diploma) were entered as control into the same multivariate logistic regression models. Odds ratios from those analyses can be found in the column labeled “Poverty control” in Table 2.

DISCUSSION

Expected Findings

Our findings highlight some important, although expected, relationships. In all, 26 of 27 variables that were significant increased the risk of reported suicide attempt. Certain variables substantially increased risk of suicide attempt. Having a previous psychiatric hospitalization made a

reported suicide attempt over 20 times more likely (OR = 20.7; for confidence intervals, see Table 2). This risk increased when controlling for demographic variables (OR = 25.1) and decreased when controlling for mental health diagnosis (OR = 16.9). This was an expected finding because suicidal behaviors/attempts are most often the reason for psychiatric hospitalization. Depression and alcohol dependence were also strongly linked to prior suicide attempt. Having a diagnosis of depression (OR = 10.4) or a diagnosis of alcohol dependence (OR = 9.5) made a prior suicide attempt 10 times more likely. Interestingly, and in comparison, this risk related to alcohol dependence decreased when controlling for demographics (OR = 3.9), but was relatively unchanged when controlling for poverty (OR = 8.9). This is an indication that perhaps a combined effect of demographic characteristics may be protective against suicide attempt.

In a related finding, having a history of receiving any mental health service also elevated risk of suicide attempt. Youth who had received mental health service(s) prior to juvenile court involvement were more than six times more likely to attempt suicide (OR = 6.4). This risk remained relatively stable when controlling for demographics, mental health diagnosis, and poverty. Having a residential placement, defined as a placement in a mental health, substance abuse, or similar treatment facility, also elevated the risk of suicide attempt, making it over six times more likely (OR = 6.4). This risk decreased when controlling for demographics (OR = 4.2) and mental health diagnosis (OR = 4.2). Again, perhaps, the combined impact of demographic characteristics is somewhat protective against suicide attempts. Similarly, it appears that for those who have a court disposition to a residential placement, having a mental health diagnosis may be protective.

Unexpected Finding—Shelter Care Placement

A particularly unique, and unexpected, finding was the increased risk of prior suicide

TABLE 2
Odds Ratio for Reported Suicide Attempt (Significant at 0.05) with 95% Confidence Intervals

Variable		No Controls		Demographic controls ^a		Any mental Health diagnosis control ^b		Poverty control ^c	
		OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Demographics	Age (per year)	0.8	(0.7, 0.99)	0.7	(0.6, 0.9)	0.8	(0.7, 0.99)	0.8	(0.7, 0.99)
	Male	0.2	(0.1, 0.4)	0.2	(0.1, 0.3)	0.2	(0.1, 0.4)	0.2	(0.1, 0.4)
	Caucasian	<i>ns</i>		<i>ns</i>		<i>ns</i>		<i>ns</i>	
	Urban	5.0	(1.5, 16.3)	10.7	(2.9, 40.0)	4.5	(1.3, 14.8)	4.4	(1.3, 14.6)
Youth education disabilities	Severely Emotionally Disturbed	2.9	(1.2, 6.9)	<i>ns</i>		<i>ns</i>		3.0	(1.3, 7.3)
Mental health diagnosis	Attention-deficit hyperactivity disorder	2.2	(1.2, 4.0)	2.0	(1.01, 3.9)	<i>ns</i>		2.1	(1.2, 4.0)
	Conduct disorder	4.9	(2.4, 10.1)	4.0	(1.7, 9.1)	3.2	(1.5, 7.0)	4.8	(2.3, 10.1)
	Oppositional defiant disorder	2.5	(1.1, 5.9)	<i>ns</i>		<i>ns</i>		<i>ns</i>	
	Bipolar disorder	4.8	(2.2, 10.3)	4.1	(1.6, 10.6)	2.9	(1.3, 6.6)	4.5	(2.1, 9.8)
	Depression	10.4	(5.4, 20.2)	8.2	(3.9, 17.3)	8.3	(4.2, 16.5)	10.0	(5.1, 19.5)
	Alcohol dependence	9.5	(3.5, 25.9)	3.9	(1.3, 12.2)	5.0	(1.7, 14.3)	8.9	(3.2, 24.5)
Child welfare	Substance use disorders	5.1	(2.7, 9.7)	4.9	(2.4, 10.1)	3.0	(1.3, 6.8)	5.0	(2.6, 9.5)
	Child welfare history	2.7	(1.5, 4.8)	2.2	(1.2, 4.2)	2.5	(1.4, 4.5)	2.6	(1.5, 4.8)
	Parental substance abuse	2.2	(1.2, 4.0)	1.9	(1.02, 3.6)	1.9	(1.04, 3.5)	2.2	(1.2, 3.9)
Mental health services prior to juvenile court involvement	Any mental health service	6.4	(2.8, 14.6)	6.0	(2.5, 14.1)	4.6	(2.0, 11.0)	6.6	(2.9, 14.9)
	Psychiatric hospitalization	20.7	(10.3, 41.5)	25.1	(10.8, 58.3)	16.9	(8.3, 34.4)	19.8	(9.8, 39.9)
	Psychiatric medication	4.2	(2.3, 7.6)	3.8	(1.9, 7.2)	2.7	(1.3, 5.4)	4.1	(2.2, 7.4)
Juvenile court involvement	Age at First Delinquency (per year)	0.8	(.6, .9)	0.7	(.6, .9)	0.8	(.7, .9)	0.8	(.6, .9)
	Court offenses (per offense)	<i>ns</i>		1.1	(1.01, 1.2)	<i>ns</i>		<i>ns</i>	
	Recidivism to out-of-home placement	2.9	(1.5, 5.4)	3.6	(1.7, 7.6)	2.4	(1.2, 4.6)	2.8	(1.4, 5.3)
	Personal crime	2.2	(1.1, 4.4)	2.1	(1.03, 4.2)	2.1	(1.1, 4.1)	2.2	(1.1, 4.2)
Juvenile court dispositions	Mental health services	3.7	(2.0, 6.8)	2.8	(1.4, 5.4)	3.1	(1.6, 5.8)	3.6	(1.9, 6.7)
	Psychiatric evaluation	2.2	(1.2, 3.9)	3.2	(1.6, 6.1)	<i>ns</i>		2.3	(1.3, 4.1)
	Multi-Systemic Therapy Program	3.2	(1.5, 6.7)	<i>ns</i>		2.7	(1.3, 5.9)	3.3	(1.6, 6.9)
	Detention center placement	2.7	(1.4, 5.3)	2.3	(1.1, 4.9)	<i>ns</i>		2.6	(1.3, 5.1)
	Residential placement	6.4	(3.2, 13.0)	4.2	(1.9, 9.3)	4.2	(2.0, 8.9)	6.2	(3.0, 12.5)
	Shelter care placement	9.6	(3.7, 24.9)	5.1	(1.7, 14.8)	8.0	(2.9, 21.6)	8.8	(3.4, 23.2)

Numbers in bold are statistically significant.

^aDemographic controls were age, gender, race, and urban.

^bMental health diagnosis included those listed above in the table.

^cPoverty controls were poverty level and parents education attainment level less than high school.

attempts for those youth placed into shelter care. Shelter care is a placement by the juvenile court into a shelter facility, normally not a secure or locked placement. In many jurisdictions, these facilities are called group homes. Delinquent youth who had a disposition for shelter care were nearly 10 times more likely ($OR = 9.6$) to have reported a suicide attempt compared to youth who did not have this particular court disposition. Also of interest, this risk decreased when controlling for demographics ($OR = 5.1$), although less so for mental health diagnosis ($OR = 8.0$) and poverty ($OR = 8.8$). This group of youth who required shelter care (group home) placement had higher reported risks of suicide attempts than those youth who were placed by the juvenile court into residential treatment. This could be possible for two reasons.

The first reason may be that this finding reflects the inexact science of adolescent assessment and diagnosis within juvenile courts and other youth-caring systems (Sko-wyra & Coccozza, 2007). It is widely recognized that a majority of youth who end up in the juvenile courts have mental health problems (Mallett, 2009); many of these are severe (Chassin, 2008; Grisso, 2008; Shufelt & Coccozza, 2006; Teplin et al., 2006). However, juvenile courts may not often recognize these problems, may not have personnel to assess and properly refer these youth for services, or may not be well coordinated with other youth-caring systems (schools, mental health and substance abuse agencies, etc.) with which to access these services. These accesses to service barriers found between the juvenile courts and the community pose significant challenges to keeping youth safe and out of harm's way. The youth in this study who ended up in shelter care were at high risk for prior suicide attempts; however, a shelter care facility is a temporary placement that does not typically provide mental health-related services, if needed.

Youth who are placed by the juvenile court into shelter care are often from neglectful and/or domestic violence family situations. These unstable home environments do not often change over time (Mar-

golin & Gordis, 2000). However, when youth leave an unstable environment, it is important that adequate support be available; whether this occurs in shelter care is unknown because there is a dearth of outcome literature. The limited reviews available, though, are discouraging, finding these placements to be much less positive when compared to other out-of-home placements (Barth et al., 2008; Scott & Lorenc, 2007).

The second reason for a higher reported risk of prior suicide attempts for youth in shelter care (group homes) may reflect a lack of resources within the juvenile justice system to handle these complicated youth and family situations. If the presenting youth report to the juvenile court judge that they are living in an unsafe home environment, placement options are limited: detention, which is often a harmful, punitive approach; residential placement, the more costly and least available alternative; and shelter care. It is not expected that the juvenile courts be a *de facto* treatment facility, although the high prevalence rates of mental health problems within the delinquent youth population make this the rule more than the exception. The courts cannot be expected to have the proper assessment capacities to handle these youth diagnostic and referral needs nor can it be expected that juvenile courts be able to pay for this level of community treatment on their own. However, it is widely recognized that much juvenile court progress can be made in moving away from a punishment model (supervision, detention, incarceration) toward rehabilitative community-based alternatives. In fact, increasing evidence supports youth delinquency programs with a therapeutic approach to changing behavior and minimizing deterrence and control (Lipsey, Howell, Kelly, Chapman, & Carver, 2010).

That being said, it seems important that screening for suicide risk should be completed on youth at the earliest point of juvenile court involvement. When a youth is at risk of coming under supervision by the court, the judge or magistrate could order a mental health/suicide risk screening. Or best

yet, this screening could become a routine measure for all youth formally processed by the juvenile court. The information gleaned from the screenings may allow for more appropriate placement and may identify suicide risk before it becomes action. Time, resources, and lives would be saved if screenings are performed routinely, and particularly before rather than after placement.

Limitations

This research has a number of limitations. First, although a random sampling method was used to select cases for inclusion in this study, the sampling frame itself was limited to only two midwestern counties in the United States, restricting the generalizability of the findings. Second, secondary analysis of existing case records was used to extract data, and the extent to which there were errors in the original data is unknown. A related records limitation is the possibility that some youth with prior education-related or mental health problems were never formally diagnosed. In addition, even diagnosed, there is a possibility that not all of these youth were correctly classified. A similar concern pertains to the suicide attempt variable. This variable only counts individuals who either self-reported their suicide attempt or had existing health/mental health records that indicated a suicide attempt. As such, the

variable should be correctly interpreted as a self-report of suicide attempt and does not capture youth who attempted suicide but never disclosed it. Finally, the time frame for when the reported youth suicide attempts occurred was not available, only that the attempt was prior to juvenile court involvement, limiting further analysis of these acts.

CONCLUSION

There were interesting results in this assessment of the correlates of reported attempted suicide within a juvenile court-supervised youth population. Some expected risks were noted, including prior psychiatric hospitalization, residential placement, and alcohol dependence. However, an unexpected finding was that a court disposition to shelter care (group home) was related to a nearly tenfold increased risk in reported prior suicide attempt. It seems clear that when working with this group of vulnerable youth, the juvenile courts, mental health professionals, and school personnel must be proactive and aware of these serious mental health concerns. A collaborative, youth-system approach is a necessity to appropriately identify and coordinate treatment for these delinquent youth who are at serious risk for attempting suicide.

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